

2012-2013 Weekly Field Reports

Copacabana, King George Island

Volume 17
February 4, 2013

Science Report:

Penguins: Adélie penguin fledge weights were completed on Friday (2/8). A total of 161 Adélie penguin fledglings were weighed. This year the weights averaged approximately 100 grams less than the 20-year mean and ranged from 1950 grams to 3850 grams. Fledgling weights are an indication of their condition as they head off for their first winter on their own. Condition at fledging can have an effect on survival (and therefore return rates) of these birds, particularly during their first winter of independence.

The final gentoo penguin diet sampling occurred on Monday (2/4). Five adults with chicks were selected from the Copa Beach colonies. Analysis of the samples showed that only 10% of the krill (*Euphausia superba*) were in the juvenile size range (35 mm or less in length), 58% were adult males, and 32% were adult females. Males ranged in size from 36 mm to 51 mm while females ranged from 40 mm to 56 mm. Otoliths were found in four out of five samples, totaling 60 in all. All otoliths are saved and sent to a colleague at Pomona College, where they will be analyzed to determine the species, size-, and age-classes of the fish eaten by the penguins.

Satellite tags (PTTs) were recovered from three chinstrap penguins in the Uchatka colonies on Friday (2/8). Two chinstrap penguin PTTs are still at large. Three gentoo penguin PTTs were also recovered this week, two on Saturday (2/9) and one on Sunday (2/10).

A final deployment of two gentoo penguin PTTs occurred on Sunday (2/10). Adults observed feeding two chicks were selected, weighed, measured, and fitted with a PTT. The tags will remain on the birds until Monday (2/18), when we plan to begin recovery efforts.

A census of chinstrap penguin chicks at the Uchatka and Patelnia colonies occurred on Friday (2/8). The numbers are then compared to the occupied nest census from earlier in the season, to determine reproductive success (i.e., chicks fledged per nest). The result was lower than last year, with 0.74 chicks fledged per nest versus 0.93 chicks per nest.

Breeding chinstrap penguins on Copa Beach remained at seven chicks for the census, all of which have now crèched and are very exposed, due to all of the Adélie penguin chicks having fledged and vacated the adjacent colony.



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2. Skuas: There remain five active brown skua nests at Copa, with a total of seven chicks.

Point Thomas and Back Country skua routes were not completed this week due to high winds.

The Demay and Patelnia skua routes were completed on Friday (2/8) in conjunction with the chinstrap penguin census. The two brown skua chicks on territories 145 and 119/149 were banded and represent the only breeding success in any of the Demay and Patelnia territories.

3. Sheathbills: Two unbanded sheathbills were seen foraging around Copa Rock. Their nesting site was not checked this week.
4. Whales & Seals: Two humpback whales, one adult and one calf, were observed feeding in the bay on Monday (2/4). In addition, single humpback whales were sighted on both Tuesday (2/5) and Wednesday (2/6). Minke whales were seen for the first time this season. Single individuals were seen diving in the middle of the bay on both Monday (2/4) and Wednesday (2/6).

The Point Thomas/Copa seal census was not conducted this week due to windy weather.

The Demay/Patelnia seal census, conducted on Friday (2/8), yielded 401 juvenile/unknown elephant seals, four male elephant seals, eight Weddell seals, and 80 fur seals.

There were two sightings of leopard seals patrolling Copa Beach this week, one on Tuesday (2/5) and one on Thursday (2/7).

5. Other: One Macaroni penguin was observed at the Uchatka chinstrap colony on Friday (2/8) and Saturday (2/9). It appeared to be in the beginning stages of molt.

A downy kelp gull chick was observed on Copa Rock on Sunday (2/10).

Weekly Weather:

This week's weather was mostly consistent with 15-20 knot winds and overcast skies. Light precipitation, both rain and snow, occurred on numerous occasions throughout the week. The winds did pick up on Friday (2/8) and Saturday (2/9), ranging between 25-35 knots.



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Camp Activities:

The overwinter camera was disassembled and brought back to camp, to be reprogrammed in hopes of putting it out for another season.

The 2012-13 Copa Field Team:

Matt Henschen, Co-Field Team Leader

Brette Soucie, Co-Field Team Leader

Caitlyn Bishop

Ana Bertoldi

Wayne Trivelpiece, Co-PI

